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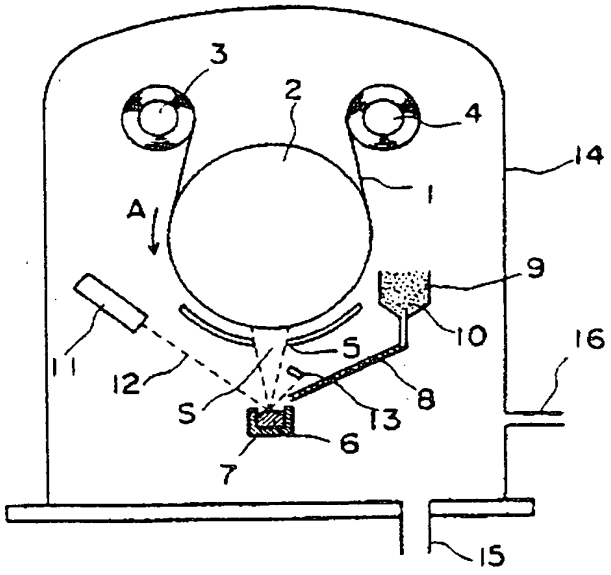
TITLE : REACTIVE VAPOR DEPOSITION METHOD OF MULTI-ELEMENT COMPOUND



ABSTRACT : PURPOSE: To execute reactive vapor deposition of a multi-element compd. at a high film forming speed by supplying a metal having the same component ratio as the component ratio of a film deposited by evaporation at the same quantity as the rate of evaporation to an evaporating source, evaporating said metal and making the generated vapor incident on the surface for vapor deposition in an active atmosphere.

CONSTITUTION: The evaporating source 6 consistingof the metallic components which have different vapor pressures and are contained in a crucible 7 in a vacuum chamber 14 which is provided with a discharge port 15 and an active gas introducing port 16 is heated and evaporated by the electron rays 12 radiated from an electron gun 11 and irradiated thereon. The generated vapor is made incident through a slit S of a mask 5 on a base film 1 made of a high polymer film, at a desired incident angle. Said base film is let off from a roll 3, is wound on a cylindrical body 2 and is further taken up on a roll 4. A sensor 13 is provided in the above-mentioned route for evaporation to measure the rate of evaporation. The metal 10 having the same component ratio as the component ratio of the film to be manufactured by vapor deposition at the same quantity as the rate of evaporation is supplied from a hopper 9 via a feeder 8 into the crucible 7. The desired compd. film deposited by evaporation is thus manufactured at a high film forming speed and the control of the incident angle is made easy.